

IN THE CLAIMS

1. (currently amended) A method of coating an implantable medical device comprising:

applying a composition, from a coating dispenser, including a solvent to an implantable medical device; and

directing a gas, from a gas dispenser positioned at a distance from the coating dispenser, onto the implantable medical device, wherein if the solvent has a vapor pressure greater than 17.54 Torr at ambient temperature the temperature of the gas is adjusted to inhibit the evaporation of the solvent, and if the solvent has a vapor pressure of less than 17.54 Torr at ambient temperature the temperature of the gas is adjusted to induce the evaporation of the solvent.
2. (previously presented) The method of Claim 1, wherein the implantable medical device is a radially expandable stent.
3. (original) The method of Claim 1, wherein the composition is applied simultaneous with the directing of the gas.
4. (original) The method of Claim 1, wherein the composition includes a polymer dissolved in the solvent and optionally an active agent added thereto.
5. (original) The method of Claim 4, wherein the polymer is ethylene vinyl alcohol copolymer and the solvent includes dimethylacetamide.
6. (previously presented) The method of Claim 1, wherein the composition comprises paclitaxel, docetaxel, or rapamycin or analogs or derivative thereof.
7. (withdraw) The method of Claim 1, wherein the act of applying the composition is terminated prior to the act of directing the gas.
8. (canceled)

9. (previously presented) The method of Claim 1, wherein the act of applying comprises using a nozzle of the coating dispenser to spray the composition onto the implantable medical device, wherein the distance from the tip of the nozzle to the outer surface of the implantable medical device is from about 0.5 cm to about 5.0 cm.

10. (previously presented) The method of Claim 1, wherein the applying is conducted by atomized spraying of the composition at a flow rate of about 0.01 mg/second to about 1.0 mg/second.

11. (previously presented) The method of Claim 1, wherein the act of applying comprises spraying the composition onto the implantable medical device.

12. (withdrawn) The method of Claim 11, wherein the gas is blown directly onto the implantable medical device and the direction of the flow of the gas is substantially in the same direction as the composition spray.

13. (currently amended) The method of Claim 11, wherein the gas is blown directly onto the implantable medical device and the direction of the flow of the gas is at an angle relative to the direction of the composition spray.

14. (withdrawn) The method of Claim 11, wherein the gas is blown directly onto the implantable medical device and the direction of the flow of gas is substantially opposite to the direction of the composition spray.

15. (original) The method of Claim 1, wherein the act of directing the gas is performed at a flow rate of about 300 feet/minute to about 10,000 feet/minute.

16. (currently amended) The method of Claim 1, wherein ~~the~~ the gas is blown directly onto the implantable medical device.

17. (previously presented) The method of Claim 1, wherein the implantable medical device is a stent and the method further comprises rotating the stent about a central longitudinal axis of the stent.

18. (previously presented) The method of Claim 1, wherein the implantable medical device is a stent and the method further comprises moving the stent in a linear direction along the longitudinal axis of the stent.

19. (original) The method of Claim 1, wherein the implantable device is a stent and the stent is at least partially expanded during the acts of applying and directing.

20. (previously presented) The method of Claim 1, wherein the gas comprises an inert gas.

21. (original) The method of Claim 1, wherein the gas is selected from a group of argon, nitrogen and air.

22. (previously presented) The method of Claim 1, further comprising changing the temperature of the implantable medical device to a temperature other than ambient temperature.

23. (currently amended) A method of coating an implantable medical device comprising:

applying a composition, from a coating dispenser, including a solvent to an implantable medical device; and

blowing a gas, from a gas blower positioned at a distance from the coating dispenser, directly onto the implantable medical device to either induce or inhibit evaporation of the solvent from the composition on the implantable device, wherein if the solvent is non-volatile the temperature of the gas is adjusted to induce the evaporation of the solvent, and if the solvent is volatile the temperature of the gas is adjusted to inhibit the evaporation of the solvent.

24. (original) The method of Claim 23, wherein if the solvent is volatile, the temperature of the gas is significantly less than the boiling temperature of the solvent.

25. (original) The method of Claim 23, wherein the temperature of the gas is about 25°C to about 200°C for the non-volatile solvent and is less than 25°C for the volatile solvent.

26. (original) The method of Claim 23, further comprising, if the solvent is non-volatile increasing the temperature of the composition to a temperature above ambient temperature prior to application of the composition onto the implantable device, or alternatively, if the solvent is volatile decreasing the temperature of the composition to a temperature below ambient temperature prior to application of the composition onto the implantable device.

27. (canceled)

28. (canceled)

29. (canceled)

30. (canceled)

31. (canceled)

32. (canceled)

33. (previously presented) The method of Claim 1, wherein applying the composition comprises spraying of the composition; wherein the directing of the gas comprises blowing the gas directly onto the device; wherein the spraying and blowing are conducted simultaneously; and wherein the blowing does not affect the direction of the spray onto the device.

34. (previously presented) The method of Claim 1 wherein the implantable medical device is a stent and wherein the stent is rotated during the application of the composition or directing of the gas.

35. (previously presented) The method of Claim 1, wherein the coating and/or gas dispenser is controlled by a central processing unit.

36. (previously presented) The method of Claim 1, wherein a controller controls the temperature and/or flow speed of the gas from the dispenser.

37. (withdrawn) The method of Claim 1, wherein application of the composition is terminated prior to directing of the gas and where the method additionally comprises repeating the steps until a desired amount or thickness of coating is deposited.

38. (withdrawn) The method of Claim 1, wherein the application of the composition is terminated prior to directing of the gas and wherein the gas is blown directly onto the stent after a waiting period.

39. (withdrawn and currently amended) The method of Claim 1, wherein the steps of applying and directing are performed in sequence a multiple number of times and wherein the method additionally comprises a ~~waiting~~ time period between each step.

40. (withdrawn) The method of Claim 1, wherein the application of the composition is terminated prior to directing of the gas and wherein the gas is blown directly onto the implantable medical device for 1 second to 100 seconds.

41. (previously presented) The method of Claim 1, wherein the implantable medical device is a stent and wherein the stent is rotated during the coating process at a speed of 3 rpm or higher.

42. (withdrawn) The method of Claim 23, wherein the applying the composition is terminated prior to blowing the gas directly onto the implantable medical device.

43. (withdrawn) The method of Claim 23, wherein the steps of applying and blowing are conducted in sequence and repeated a number of times.

44. (previously presented) The method of 23, wherein the steps of applying and blowing are conducted simultaneously.

45. (previously presented) The method of Claim 23, wherein the gas comprises an inert gas.

46. (previously presented) The method of Claim 23, wherein the gas comprises air.

47. (withdrawn) The method of Claim 23, wherein the implantable medical device is a stent; wherein the applying of the composition is terminated prior to blowing of the gas; and wherein the method additionally comprises rotating the stent about the longitudinal axis of the stent during the act of applying and/or blowing.

48. (previously presented) The method of Claim 23, wherein the composition includes a polymer.

49. (previously presented) The method of Claim 23, wherein the composition includes a drug.

50. (previously presented) The method of Claim 23, wherein the composition includes paclitaxel, docetaxel, or rapamycin or analogs or derivative thereof.

51. (previously presented) The method of Claim 23, wherein the implantable medical device is a stent; wherein the stent is supported by a support assembly; and wherein the method additionally comprises rotating the stent about a longitudinal axis of the stent.

52. (previously presented) The method of Claim 23, wherein the implantable medical device is a stent, wherein the stent is supported by a support assembly; wherein the steps of applying and blowing are conducted simultaneously; and wherein during the steps of applying and blowing the stent is rotated about a longitudinal axis of the stent.

53. (previously presented) The method of Claim 23, wherein applying is via spraying.

54. (currently amended) A method of coating a stent comprising;

positioning a stent on a support assembly ~~holding fixture~~;

applying a coating substance including a solvent from a dispenser to the stent;

blowing a gas from a blower onto the stent to either induce or inhibit evaporation of the solvent from the coating substance on the stent based on the volatile properties of the solvent; and

rotating the stent supported by the support assembly ~~holding fixture~~ about a longitudinal axis of the stent, wherein applying, blowing and rotating are done simultaneously.

55. (previously presented) The method of Claim 54, wherein the stent is rotated at 3 rpm or higher.

56. (previously presented) The method of Claim 54, wherein the gas comprises an inert gas.
57. (previously presented) The method of Claim 54, wherein the gas comprises air.
58. (previously presented) The method of Claim 54, wherein the coating substance includes a drug.
59. (previously presented) The method of Claim 54, wherein the coating substance includes paclitaxel, docetaxel, or rapamycin or analogs or derivative thereof.
60. (currently amended) The method of Claim 54, wherein the coating substance includes a polymer ~~and a~~ dissolved in the solvent.
61. (currently amended) A method of coating a stent comprising:
- positioning a stent on a support assembly ~~holding fixture~~;
 - rotating the stent about the longitudinal axis of the stent positioned on the support assembly ~~holding fixture~~;
 - applying a coating substance including a solvent from a dispenser to the stent;
 - blowing a gas from a blower onto the stent to either inhibit or induce evaporation of the solvent based on the volatility of the solvent; and
 - repeating applying and blowing and wherein the applying of the coating substance is terminated before the gas is blown onto the stent and wherein the stent is rotated about the longitudinal axis of the stent on the support assembly ~~holding fixture~~ during the applying of the coating substance and the blowing of the gas.
62. (previously presented) The method of Claim 61, wherein the stent is rotated at 3 rpm or higher.
63. (previously presented) The method of Claim 61, wherein the gas comprises an inert gas.
64. (previously presented) The method of Claim 61, wherein the gas comprises air.

65. (previously presented) The method of Claim 61, wherein the coating substance includes a drug.
66. (previously presented) The method of Claim 61, wherein the coating substance includes paclitaxel, docetaxel, or rapamycin or analogs or derivative thereof.
67. (currently amended) The method of Claim 61, wherein the coating substance includes a polymer ~~and~~ dissolved in the solvent.
68. (previously presented) The method of Claim 61, additionally comprising adjusting the temperature of the gas.
69. (previously presented) The method of Claim 61, wherein the step of applying comprises spraying.
70. (previously presented) The method of claim 69, additionally comprising waiting for a period of time between the applying followed by the blowing and/or waiting for a period of time between the blowing followed by the applying.
71. (new) The method of claim 1, wherein the opening of the gas dispenser is pointed at and facing the implantable medical device.
72. (new) The method of claim 23, wherein the opening of the gas dispenser is pointed at and facing the implantable medical device.